

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

September 13, 2007

Kenneth D. Räcke, Ph.D. Regulatory Leader Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268

Subject:

Miscellaneous Revisions (Add non-public health pest, etc.) to Main Labeling

Spinosad 0.5% SC

EPA Reg. No. 62719-314

Application dated May 30, 2007

Dear Dr. Racke:

The above referenced labeling, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable with the following comments:

• Under Warranty Disclaimer and Limitation of Remedies, add "To the extent consistent with applicable law" to the beginning of the statements "Seller makes no ... implied warranty", "The exclusive remedy for losses ..." and "Seller shall not ... damages and losses.

Please make the above stated revisions and submit the final printed label to the Agency. See enclosed copy of the stamped label for your record.

If you have any questions please contact Dr. B.A. Akinlosotu at (703) 605-0653.

Sincerely,

George T. LaRocca,

Product Manager 13
Insecticide Branch

Registration Division (7505P)

Enclosure

Label:

# Spinosad 0.5% SC

**Insect Control Product** 

ACCEPTED with COMMENTS In EPA Letter Dated:

SEP 13 2007

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the posticide registered under EPA Reg. No.

FOR RESIDENTIAL USE IN HOME GARDENS, LAWNS AND ORNAMENTALS For control of foliage feeding worms (caterpillars), thrips and other listed pests in:

- · Fruiting vegetables, such as tomato, pepper, okra and eggplant
- · Cucurbits, such as cantaloupe and honeydew
- Cole crops (Brassica), such as broccoli, cabbage and cauliflower
- · Leafy vegetables, such as lettuce, spinach and celery
- Tuberous vegetables, such as potatoes, sweet potatoes, yams, Jerusalem artichoke Chinese artichoke and cassava
- Stone fruits, such as peaches, plums, cherries, nectarines, prunes and apricots
- Apple and other pome fruits, such as pears, crabapples, mayhaw and quince
- · Bushberries and caneberries, such as blueberry, blackberry and raspberry
- Citrus trees, such as oranges, grapefruit, lemons, limes, and tangerines
- Succulent beans and peas, such as lima bean, snap bean and blackeyed pea
- Tree fruits, such as avocado, mango, star apple and papaya
- Tree nuts, such as pecans, almonds, cashew and walnuts
- · Sweet corn and popcorn
- Asparagus
- Grape
- Leafy and dried herbs
- Strawberry
- Lawns
- Outdoor herbaceous and woody ornamentals
- Fire ant control in lawns, ornamentals, home gardens, and other outdoor areas

See Home Gardens and Lawns and Ornamentals sections for a complete listing of crops and use sites.

and/or

Liquid concentrate

and/or

Easy to use

and/or

**User friendly** 

and/or

No guesswork

and/or

CONCENTRATE

and/or

For vegetables, apples, and citrus trees

and/or

Controls worms (caterpillars)

and/or

Kills worms (caterpillars)

and/or

Controls citrus leafminers

and/or

Controls Colorado potato beetle

and/or

Kills Colorado potato beetle

and/or

Controls certain insects in vegetable gardens

and/o

Controls certain insects in the garden

and/or

Controls certain insects in vegetable gardens

and/or

For vegetables

and/or

No odor water-based formula

and/or

Water-based formula

and/or

Contains spinosad

and/or

Do-it-yourself home garden insect control

and/or

Leaves no oily residue

and/or

Kills certain home garden insect pests

and/or

Short post-harvest interval

and/or

Pick apples 7 days after spraying

and/or

Contains [trademark] Naturalyte® insect control

and/or

A [trademark] Naturalyte® insect control product

Active Ingredient:

spinosad (a mixture of spinosyn A

and spinosyn D)	 	0.5%
ther Ingredients		
otal		

Contains 0.04 lb of active ingredient per gallon.

U.S. Patent No. 5,362,634 and 5,496,931



Listed by the Organic Materials Review Institute (OMRI) for use in organic production.



Keep Out of Reach of Children

Refer to back/side panel for Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Shake Well Before Use Avoid Freezing	
EPA Registration No. 62719-314	EPA Est.
<sup>®</sup> Trademark of Dow AgroSciences LLC Produced for Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.	Net Contents

(back/side panel)

## **Precautionary Statements**

### **Environmental Hazards**

This product is toxic to bees exposed to treatment for 3 hours following treatment. Do not apply this pesticide to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period. This product is toxic to aquatic invertebrates. Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate. Do not put product or rinse water down drain.

### Physical or Chemical Hazards

Combustible. Do not use or store near heat or open flame

### **Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

For residential use in home gardens, lawns and ornamentals. Not for use on plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

### Storage and Disposal

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in original container only in secure or locked storage area.

Pesticide Disposal: If empty: Do not reuse this container. Place in trash or offer for recycling if available.

If partly filled: Call your local solid waste agency or 1-800-992-5994 for disposal instructions. Never place unused product down any indoor or outdoor drain.

Spinosad 0.5% SC insect control product is intended for control of worms (caterpillars) and other listed insects. Spinosad 0.5% SC does not significantly impact predatory beneficial insects, predatory mites, and spiders while controlling target pests. Susceptible insect pests may be observed on plants up to several hours after treatment, but will have ceased active feeding before being killed. Spinosad is classified as an organic substance by the USDA National Organic Standards Board.

#### How to Mix

Add the required amount of Spinosad 0.5% SC to the recommended amount of water, mix thoroughly, and apply uniformly to both upper and lower surfaces of plant foliage. It is recommended to mix only as much spray as needed for a single treatment. In vegetable gardens it is recommended to use not more than 3 gallons of spray for 1000 sq ft of area. Do not use kitchen utensils for measuring. Keep. measuring utensils with product and away from children.

	Amount of Spinosad 0.5% SC to Use per Pint, Quart or Gallon of Spray			
Unit of Measure <sup>†</sup>	Per Pint Per Quart Per Gallon (16 fl oz) (32 fl oz) (128 fl oz) of Spray of Spray of Spray			
Fluid Ounces (fl oz)	0.25 fl oz	0.5 fl oz	2 fl oz	
Milliliters (mL)	7.5 mL	15 mL	60 mL	
Tablespoons (Tbs)	1/2 Tbs	1 Tbs	4 Tbs	
Teaspoons (tsp)	1 1/2 tsp	3 tsp	12 tsp	

<sup>†</sup>Conversion factors: 1 fl oz = 30 mL = 2 tablespoons (Tbs) = 6 teaspoons (tsp) (1 teaspoon = 1/3 tablespoon)

### **How to Apply**

#### Shake Well Before Use

Spinosad 0.5% SC may be applied with trigger sprayer, hand-held, backpack, or hose-end sprayers. Use a hose-end sprayer that can be adjusted to provide a dilution ratio of about 2 fl oz of Spinosad 0.5% SC (4 Tbs) per gallon of spray. [Editor's Note: The following statement should be included in the label if product is packaged to be applied with a hose-end sprayer.] See Hose-End Sprayer Directions below if this product is packaged in a hose-end sprayer.

# Hose-End Sprayer Directions [Editors note: Formulator label may include directions and graphic for a hose-end sprayer application.]

### When to Apply

Apply when listed pests are present. Repeat applications may be made as indicated in the Home Gardens section. See your state extension service recommendations for treatment guidelines in your area.

### Uses

### **Home Gardens**

In the state of Georgia, do not apply Spinosad 0.5% SC to: Broccoli Raab, Chinese Cabbage (Bok Choy), Collards, Kale, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens.

Crops	Pests Controlled	Maximum Number of Applications per Season	Minimum Days to Wait Before Reapplying	Minimum Days to Wait from Last Application to Harvest
apple and other pome fruits including, but not limited to: crabapples, mayhaw, pears, and quince	codling moth leafminers leafrollers Oriental fruit moth tufted apple budmoth		10	7
asparagus (post-harvest to protect ferns)	asparagus beetles	4	7	60 .
bushberries and caneberries, including, but not limited to: blackberry, blueberry, currant, elderberry, gooseberry, huckleberry, juneberry, lingonberry,loganberry, raspberry, and salal	armyworms fireworms fruitfly (suppression) fruitworms leafrollers loopers thrips	6	6	3
citrus trees, including, but not limited to: grapefruit, lemons, limes, oranges, and tangerines (to prevent fruit scaring from thrips, treat when fruit is marble size)	katydids leafminers thrips worms (caterpillars)	6	6	1
cole crops (Brassica	cabbage looper	6	4	1

vegetables), including, but not limited to: broccoli, broccoli raab, brussels sprouts, cauliflower, cavalo, Chinese broccoli, cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, and rape greens cucurbits, including, but not	diamondback moth imported cabbage worm leafminers worms	6	5	all except
limited to: cucumber, edible gourds, muskmelons (cantaloupe, honeydew, etc.), pumpkin, summer and winter squash, and watermelon	thrips worms (caterpillars)			cucumber, 3 cucumber, 1
fruiting vegetables, including, but not limited to: eggplant, ground cherry, okra, pepino, pepper, tomatillo, and tomato	Colorado potato beetle leafminers thrips worms (caterpillars)	6	4	1
grape	leafrollers thrips worms (berry moth)	6	5	7
leafy and dried herbs	leafminers thrips worms (caterpillars)	5	7	1
leafy vegetables, including, but not limited to: arugula, celery, chervil, corn salad, cress, dandelion, dock, edible chrysanthemum, endive, fennel, garden pursiane, head and leaf lettuce, parsley, radicchio, rhubarb, spinach, and Swiss chard	leafminers worms (caterpillars)	6	4	1
stone fruits, including, but not limited to: apricots, cherries, nectarines, peaches, plums, and prunes	borers fruit flies leafminers leafrollers thrips worms (caterpillars)	6	7	peach, apricot, all except cherry plum, prune, nectarine, 14 cherry, plum and prune, 7 nectarine, 1
strawberry	armyworms leafrollers thrips	6	5	1
succulent beans and peas, including, but not limited to: blackeyed pea, garbanzo bean, garden pea, lima bean, snap bean, and snow pea	borers leafminers thrips worms (caterpillars)	6	5	3
sweet corn and popcorn (for earworms, treat silk frequently as it grows)	corn borers worms (caterpillars), including earworm	6	3	1
tree nuts, including, but not limited to: almonds, cashew,	husk fly (suppression)	5	7	14

chestnut, macadamia, pecans, pistachio, and walnuts	leafrollers navel orangeworms peach twig borer shuckworms webworms			
tree fruits: atemoya, avocado, cherimoya, custard apple, guava, longan, lychee, mango, papaya, passionfruit, rambutan, sapodilla, sapote, star apple, star fruit, and wax jambu	suppression of worms or caterpillars, thrips, and katydids			
tuberous and corm vegetables, including, but not limited to: cassava, chayote root, Chinese artichoke, ginger, Jerusalem artichoke, potatoes, sweet potatoes, tumeric, and yams	Colorado potato beetle corn borers leafminers thrips worms (caterpillars)	6	7	
all crops listed in this table	fire ants	See application directions in Lawns and Ornamentals		

## **Lawns and Ornamentals**

Use Site	Pests Controlled	Comments
lawns ·	worms, including small (<3/4") armyworm, and sod webworm cat fleas (suppression only)	Mix the amount of Spinosad 0.5% SC recommended per gallon of spray and uniformly apply a minimum of 3 gallons of spray per 1000 sq ft of area. Delay watering or mowing for 12 to 24 hours after application.  Armyworms: For best results, apply in early morning or late afternoon.  Cat fleas: Apply early or late in the day since control requires contact with dilute spray before drying. Thorough coverage is necessary. Reapply in 7 to 14 days to control adults that have emerged from pupae present at time of initial treatment.
outdoor ornamentals (herbaceous and woody plants)	emerald ash borer <sup>1</sup> gall midges leaf feeding beetles leafminers sawfly larvae spider mites <sup>2</sup> thrips worms, including loopers, webworms, bagworms, gypsy moth, and tent caterpillars	Mix the amount of Spinosad 0.5% SC recommended per pint, quart or gallon of spray and uniformly spray foliage to point of runoff. Uniform coverage of upper and lower leaf surfaces is essential for effective insect control.
lawns, ornamentals, home gardens (see listed crops in previous table) and other outdoor areas	fire ants	Individual fire ant mounds: Mix the amount of Spinosad 0.5% SC recommended per gallon of spray and use a sprinkler can or similar device to apply the diluted spray as a mound drench, using 1 to 2 gallons per mound. Do not use pressurized sprays. Apply about 10% of the spray volume around the perimeter of the

mound and the remainder directly to the mound. Do not disturb fire ant mound prior to application. If possible, apply following recent rainfall. For best results apply when weather is cool, 65 to 85°F, or in early morning or late
evening.

Mix 5 fl oz of Spinosad 0.5% SC per gallon of spray and apply to foliage and bark of the tree when adult emerald ash borer are first observed emerging from the bark or when adult emerald ash borer are first noticed feeding on the leaves of the tree. Reapply every 7 to 10 days until no additional adult emerald ash borer activity is observed. Applications to trees already heavily infested may not prevent the eventual loss of the tree due to existing pest damage.

<sup>2</sup>Apply when spider mites are first observed prior to webbing and before mite populations have become severe. Reapply after 7 to 10 days (3 to 5 days in greenhouses and structures that can be altered to be closed or open) to contact newly hatched nymphs and repeat until infestation is managed. **Uniform coverage of both upper and lower leaf surfaces is critical.** Addition of a nonionic spray adjuvant at 0.1% v/v has been shown to enhance control of spider mites (follow surfactant manufacturer's label recommendations).

### Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

The registrant acknowledges that this product may be misbranded if one or more of its ingredients, active and/or inert, is reclassified as non-organic and/or removed from the United States Department of Agriculture (USDA) National List of approved substances for use in organic production and handling. If one or more of the ingredients in this pesticide product are so reclassified and/or removed (delisted) from the National List, the registrant will take appropriate remedial measures with respect to the labeling for this product.

### Warranty Disclaimer

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. SELLER MAKES NO OTHER EXPRESS NOR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

### Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Seller. All such risks shall be assumed by Buyer.

### **Limitation of Remedies**

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Seller's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or

### 2. Replacement of amount of product used.

Seller shall not be liable for losses or damages resulting from handling or use of this product unless Seller is promptly notified of such loss or damage in writing. In no case shall Seller be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of the Seller or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or Limitation of Remedies in any manner.

EPA accepted \_\_/\_/\_